



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0112; Product Identifier 2017-NM-161-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-100, -200, -200C, -300, -400, -500 series airplanes. This proposed AD was prompted by reports of cracking in certain flanges, and the adjacent web, of the wing outboard flap track at certain positions. This proposed AD would require an inspection to determine the part number of the wing outboard flap track assembly; repetitive inspections of each affected wing outboard flap track for discrepancies, and applicable on-condition actions; and repetitive overhaul of each wing outboard flap track. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0112.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0112; or in person at the Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations (phone: 800-647-5527) is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Payman Soltani, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: payman.soltani@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0112; Product Identifier 2017-NM-161-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received a report indicating that during the tear down of a Model 737-300 airplane, cracking was found in the inboard lower flange and adjacent web near the forward attachment of the outboard flap track at position 8. The cracked flap track had accumulated 1,579 flight cycles since it was installed on the airplane after the most recent overhaul, and approximately 20,000 flight cycles since new. The metallurgical evaluation of the cracked flap track found that stress corrosion cracking originated from a fastener hole in the flap track web with missing cadmium plating. There was not sufficient evidence to conclude that the missing cadmium plating was the cause or the result of the cracking. Boeing has since received one more report of cracking in the outboard lower flange and the adjacent web of the outboard flap track at position 8 on a different Model 737-300 airplane. The crack was also found near the forward attachment, but did not originate from a fastener hole. The cracked flap track had accumulated 1,175

flight cycles since it was installed on the airplane. Boeing determined that the existing inspection programs are not sufficient to find such cracks before failure of a flap track could occur.

Cracking in the area between the forward and rear spar attachments of the wing outboard flap tracks may lead to the inability of a principal structural element to sustain required flight load, such cracking could result in loss of the outboard trailing edge flap and consequent reduced controllability of the airplane.

Related Rulemaking

AD 2013-09-02, Amendment 39-17443 (78 FR 27010, May 9, 2013) (“AD 2013-09-02”), requires operators to use Boeing Service Bulletin (SB) 737-57A1271, Revision 3, dated February 13, 2012 (“SB 737-57A1271 R3”), to accomplish the inspections required by paragraph (p) of that AD. Boeing SB 737-57A1271 was issued to address more than 30 reports of stress corrosion cracks in the wing outboard flap tracks at positions 2 and 7, and provides instructions to do detailed and non-destructive test (NDT) inspections of the flap track flanges and webs, and detailed and NDT inspections of the flap track at the rear spar attachment. Boeing SB 737-57A1271 also gives instructions to repair, overhaul, and replace the wing outboard flap tracks at positions 2 and 7. Boeing SB 737-57A1271 does not include NDT inspections of the flap track flanges at the attachment of the flap transmission and the hinge support assembly, or NDT inspections of the flap track webs forward of the rear spar attachment nor repair, overhaul, and replacement of the wing outboard flap tracks at positions 1 and 8. As discussed above, Boeing reported information that indicates additional areas of stress corrosion cracks in other positions of the wing outboard flap tracks and the adjacent web of the outboard flap tracks. Therefore, the existing requirements of AD 2013-09-02 do not fully address the unsafe condition.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017. The service information describes procedures for repetitive inspections, repair, repetitive overhaul, and replacement of the wing outboard flap tracks, and applicable on-condition actions. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require new NDT inspections of the flap track flanges and webs forward of the rear spar attachment, in areas not previously inspected using SB 737-57A1271 R3 (or previous revisions), to the existing requirements in AD 2013-09-02. The new and existing requirements would also apply to the wing outboard flap tracks at positions 1 and 8. Accomplishment of the inspections, repair, overhaul, and replacement of the wing outboard flap tracks specified in Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017, would replace the instruction in SB 737-57A1271 R3 (or previous revisions), and terminates the requirements of AD 2013-09-02.

This proposed AD would require accomplishment of the actions identified in the Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017, described previously, except for any differences identified as exceptions in the regulatory text of this proposed AD.

For information on the procedures and compliance times, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0112.

Explanation of Requirements Bulletin

The FAA worked in conjunction with industry, under the Airworthiness Directives Implementation Aviation Rulemaking Committee (AD ARC), to enhance the AD system. One enhancement is a process for annotating which steps in the service information are “required for compliance” (RC) with an AD. Boeing has implemented this RC concept into Boeing service bulletins.

In an effort to further improve the quality of ADs and AD-related Boeing service information, a joint process improvement initiative was worked between the FAA and Boeing. The initiative resulted in the development of a new process in which the service information more clearly identifies the actions needed to address the unsafe condition in the “Accomplishment Instructions.” The new process results in a Boeing Requirements Bulletin, which contains only the actions needed to address the unsafe condition (i.e., only the RC actions).

Costs of Compliance

We estimate that this proposed AD affects 160 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection (positions 1 and 8; Group 2 and Group 3, configuration 1)	78 work-hours X \$85 per hour = \$6,630 per inspection cycle	\$0	\$6,630 per inspection cycle	\$1,060,800 per inspection cycle

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection (positions 1 and 8; Group 3, configuration 2)	89 work-hours X \$85 per hour = \$7,565 per inspection cycle	\$0	\$7,565 per inspection cycle	\$1,210,400 per inspection cycle
Inspection (positions 2 and 7; Group 2 and Group 3, configuration 1)	83 work-hours X \$85 per hour = \$7,055 per inspection cycle	\$0	\$7,055 per inspection cycle	\$1,128,800 per inspection cycle
Inspection (positions 2 and 7; Group 3, configuration 2)	86 work-hours X \$85 per hour = \$7,310 per inspection cycle	\$0	\$7,310 per inspection cycle	\$1,169,600 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the actions for Group 1 airplanes or the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2018-0112; Product Identifier 2017-NM-161-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD affects AD 2013-09-02, Amendment 39-17443 (78 FR 27010, May 9, 2013) (“AD 2013-09-02”).

(c) Applicability

This AD applies to all The Boeing Company Model 737-100, -200, -200C, -300, -400, -500 series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Unsafe Condition

This AD was prompted by reports of cracking in certain flanges, and the adjacent web, of the wing outboard flap track at certain positions. We are issuing this AD to detect and correct cracking of the rear spar attachment, and cracking of the wing outboard flap tracks. Cracking in the area between the forward and rear spar attachments of the wing outboard flap tracks could lead to the inability of a principal structural element to sustain

required flight load, and result in loss of the outboard trailing edge flap and consequent reduced controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions for Group 1 Airplanes

For airplanes identified as Group 1 in Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017: Within 120 days after the effective date of this AD, do actions to correct the unsafe condition using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(h) Required Actions

For airplanes not specified in paragraph (g) of this AD: Except as required by paragraph (i) of this AD, at the applicable times specified in the “Compliance” paragraph of Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017.

Note 1 to paragraph (h) of this AD: Guidance for accomplishing the actions required by this AD can be found in Boeing Alert Service Bulletin 737-57A1338, dated September 25, 2017, which is referred to in Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017.

(i) Exceptions to Service Information Specifications

For purposes of determining compliance with the requirements of this AD: Where Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017, uses the phrase “the original issue date of Requirements Bulletin 737-57A1338 RB,” this AD requires using “the effective date of this AD.”

(j) Terminating Action for Requirements of AD 2013-09-02

Accomplishment of the requirements specified in paragraph (h) of this AD terminates all of the requirements specified in AD 2013-09-02.

(k) Parts Installation Limitation

As of the effective date of this AD, no person may install, on any airplane, a wing outboard flap track having a part number listed in paragraph 1.B. of Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017, unless the inspections and corrective actions specified in the Accomplishment Instructions of Boeing Alert Requirements Bulletin 737-57A1338 RB, dated September 25, 2017, are accomplished prior to the part's installation on the airplane.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (m)(1) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO Branch, to make those findings. To be

approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(m) Related Information

(1) For more information about this AD, contact Payman Soltani, Aerospace Engineer, Airframe Section, FAA, Los Angeles ACO Branch, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5313; fax: 562-627-5210; email: payman.soltani@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Renton, Washington, on February 12, 2018.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.
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